## Game Modifications (Player Communities)

### "To Mod or Not to Mod - An Empirical Study on Game Modding as Customer Value Co-Creation"

Katarzyna Bilińska-Reformat, Anna Dewalska-Opitek and Magdalena Hofman-Kohlmeyer (2020) 'To Mod Or Not to Mod—An Empirical Study on Game Modding as Customer Value Co-Creation'. *Sustainability,* Vol. 12 (9014) 9014.

In this article the authors focus on the customer value co-creation in relation to game modifications as well as the motives of mod users and creators. Qualitative research has been carried out which includes separate interviews and focus groups with mod creators and mod users. This research centres on the participation in the development of game mods and how it motivates the user and the creator based on the engagement of the individual. This article gives an in-depth definition of what game modifications are and the different types of game mods and their characteristics alongside some background historical information on the first ever mod created which will be useful in my research. The player communities are extremely vital as they benefit game developers and the long continuance of games. The conclusions indicate that the mod users and creators involvement in game design modifications show different motives and that mod creators are value co-creators. This article will be beneficial in terms of research as it shares the different motives of player and mod communities. There are also several examples of the different types of games that have been modded such as Second life, Adventure and Euro Truck Simulator 2 which participants had to play to carry out their research. The contributors thought that modding the game made the experience more entertaining. The modding community was also mentioned briefly in terms of the game and how different add-ons enable many possibilities such as multiplayer options in addition to sharing creations on forums and websites.

### "Building the Perfect Game - An Empirical Study of Game Modifications"

Lee, D., Lin, D., Bezemer, C. and Hassan, A.E. (2020) 'Building the Perfect Game – an Empirical Study of Game Modifications'. *Empirical Software Engineering: An International Journal,* Vol. 25 (4) 2485.

The authors on this report provide detailed information on Nexus Mods which is a website allowing the user to download and upload mods for the computer. Game developers are constantly pressured into making a flawless game for their fanbase but with game modding

being possible, it helps them boost up sales as well as improving the overall gaming experience. The authors' overall goal is to dig deeper into the modding community and look at the features of popular mods in addition to how the mod developer fixes bugs and continues making the mod playable without any faults. The authors are doing an empirical study on 9,521 mods that has been made available on the Nexus Mods distribution platform. This article is useful in my research as it gives a detailed description of the Nexus Mods distribution platform alongside many other things such as a table outlining popular games and the number of mods that are available. Another table can be found outlining different mod categories and what kind of games are popular for modding in the findings section. This article has pieces of information which will be beneficial in terms of research but the overall study doesn't seem too important as it is mainly focused on bug reports. There are useful sections such as the authors studying the impact of games before and after the release of mods.

## An Empirical study of the characteristics of popular Minecraft Mods

Lee, D., Rajbahadur, G.K., Lin, D., Sayagh, M., Bezemer, C. and Hassan, A.E. (2020) 'An Empirical Study of the Characteristics of Popular Minecraft Mods'. *Empirical Software Engineering: An International Journal,* Vol. 25 (5) 3396.

The content of this article focuses on the difficulty often encountered by game developers when creating a game. It takes into consideration primary factors such as cost. To combat the complications that arise during this process, a viable solution is frequently seen through constructing a modding community for the game. The paper discusses how this has been quite effective in satiating the expectations of gamers along with development stress. The authors perform a study on 1,114 popular and unpopular mods from the CurseForge platform which specialise in add-ons and mods for Minecraft and other games. The article's content is not significantly relevant to my course objectives but it contains information that is useful for future research such as The Minecraft game and the CurseForge platform. There are tables outlining the different mods that the community have made for the game such as Redstone, Food, Add-on related and so forward.

## "Of Mods and Modders: Chasing Down The Value of Fan-Based Digital Game Modifications"

Postigo, H. (2007) *Of Mods and Modders: Chasing Down the Value of Fan-Based Digital Game Modifications*, SAGE: United States.

The modding community plays an active role in relation to the success of a game in addition to the gaming industry as their work is constantly being recognised because it improves the sales of a game. There are various add-ons that fan programmers design which include modding, changing the layout of a map, weaponry, skins and making changes to the game-play. Modders have the ability to make changes to anything in relation to the game. Some of these examples involve making changes to the game-play and the story mode of a game and physically manipulating the world around them. Mappers on the other hand design the map layout of the game. Skinners change the "skin" of the character and weapon makers who create or improve weapons within the game. The article outlines that the modding community needs to have a deep understanding of programming and scripting languages in order to make these add-ons possible. In addition to that they should also have knowledge of the history and the background of the game if it's set in a previous time. The author mentions that modders go as far as creating their own sounds when building a weapon which demonstrates their motivation to the game. The gaming industry can gain from the fan-programmers as they perform active duties of testing and producing when it comes to later games. The author states that the success of a game can be due to the modding community and that modders take more risks in relation to the game than the industry would. Furthermore a study has been performed by the author in which he interviews fan programmers who actively participate in successful FPS games, he gathers information on the understanding of their work and asks questions like what their motivations are when it comes to making add-ons for their favourite games.

## "Modding to the Big Leagues: Exploring the Space between Modders and the Game Industry."

Postigo, H. (2010) 'Modding to the Big Leagues: Exploring the Space between Modders and the Game Industry'. *First Monday,* Vol. 15 (5) 1.

The author in this article mentions that the modding culture has a vital affect on "participatory culture" when it comes to the gaming industry and video games. The gaming industry has helped fan programmers immensely by creating editing tools such as software development kits, by giving the modding community a platform and by making it possible for the modding community to manipulate story-lines within the game. There are various

gaming companies which made it possible to host the modding culture such as Epic Games, Valve Software, and Steam. Epic games made a developmental tool for the modding community which allows them to create games using their engine (Epic's Unreal Engine 3). The modding culture proves to have allowable and working content for gaming fans as well as individuals who are a good source of labour. Modders are similar to that of professional teams because they are motivated and passionate about their work. The author mentions that the gaming industry thinks that the modding community should profit off their work so they are willing to create a base for them in which they can license. The author also compares the modding community to that of "web modders" which are individuals who take part in social media platforms such as ourselves as we actively post tweets and continue the lifespan of those platforms. There are many speculations that modders are "hobbyists" and "free labourers" in which the author tries to understand within the study. Video games are an important aspect for modders as well as the online community. Manipulating games gives modders a chance to inspect the game on a personal level while it teaches them important skills such as coding and design. It also gives them the freedom to be as creative as they want to be and provides them with a sense of ownership over the game.

## "Learning through Game Modding"

El-Nasr, M.S. and Smith, B.K. (2006) 'Learning through Game Modding'. *Computers in Entertainment (CIE),* Vol. 4 (1) 7-es.

The article suggests that there are a number of individuals who learn different skills when creating mods for video games. The gaming industry has also made it easier for the modding culture by providing them with engines that contain scripting languages which allow them to modify, create and manipulate the virtual world around them. Modding games don't necessarily require funding whereas creating a game from nothing wastes valuable time and money. Users might also have difficulty building a game that they envision while existing games have built in tools provided by the game companies. There are many advantages in terms of skill-set when modifying existing games. Students learn things within computer science, physics, maths and 3D graphics. There are also various educational benefits that help individuals when it comes to the real world such as finding solutions for problems, teamwork, receiving feedback from peers that help them get better and analysing and evaluating when it comes to modifying their games. The modding community has been getting more popular over the years in addition to game editors and engines. Some popular games that have been modded include Counter-Strike which was used from the half-life game engine and became its own series of games. This study does in-depth research by going to a high school and analysing a course on game design and programming. This course gave students the opportunity to create a game within 3 days. Students were able to use the provided tools and worked in groups, handing out different tasks for each person. This article outlines different skills and concepts that they noticed in relation to game concepts, software development and design, programming concepts and artistic concepts.

In conclusion they were able to identify and present evidence on game modding when it came to learning new skills, motivation and recognising the game engine tools.

## "Game not over: End-user Programming and Game System as Models for Extending Community Engagement"

Wells, M. (2018) 'Game Not Over: End-User Programming and Game System Modding as Models for Extending Community Engagement', *Elpub 2018*.

In this article the author mentions how Microsoft studios created an expansion pack for "Age of Empires II" that was released in 1999 due to the fact that the modding community generated add-ons and features for the game. The article mentions that the modding community extends the shelf life of a game in addition to creating and sharing their add-ons with the community. Modding was originally known as "cracking" which originated in the 1980s. People on extremely outdated computers would hack into their most popular games by removing the copyright infrastructure so that they could sell it on without getting caught. Doom was also a FPS franchise in which the gaming industry published a developmental tool used to help the modding community access files such as level editors and graphic editors. Afterwards more developing tools were created such as the Lua scripting language which was an easy tool for modders so that they could learn easy and simple scripting code. Different communities have made themselves available in terms of popular games. One of those examples being the SimCity fan base which has a website called "Simtropolis". This website contains mods, game mechanics and various add-ons and features which bring the 2003 game to life. The modding community depend on these specific websites as they contain everything they need in relation to the game. The author concludes that developmental tools that are released alongside games make it possible for the modding community to manipulate and edit the world around them. Without these tools, the modding community wouldn't exist. An extremely popular multiplayer game "Counter Strike" came from modding "Half-Life 2" which was released in 1998 and still prospers to this day. Fan programmers modify "artefacts" within an already published game and make them stand out so that fans are engrossed into finding out more about it.

## "Am I Mod or Not? - An analysis of First Person Shooter modification culture."

Nieborg, D.B. (2005) 'Am I Mod Or Not?-an Analysis of First Person Shooter Modification Culture', *Creative Gamers Seminar—Exploring Participatory Culture in Gaming, University of Tampere, Finland (14–15 January)*.

The author in this article aims to discuss what a mod is. He goes into detail about different FPS games and the modding community revolving around them. He talks about Half Life 2 which after its release, created a development tool and challenged users in a map making contest for their new video game Half Life 2: Deathmatch. The game developers offered their audience a platform by giving them the opportunity to make maps for the game itself. The author states that mods contain either small adaptations to a game or completely taking apart the game and creating something new and interesting. He gives an example of the FPS Unreal Tournament which had been altered completely and turned into a new game called World War 2 shooter Red Orchestra. The author

expresses that he is mainly targeting fully converted fan modifications of video games. He briefly mentions the Sims 3 which possess a big modding community. Game developers tend to use existing tools and engines which help them create new games which the author mentions could be seen as mods. He gives examples of commercial games which are based on the same engine such as Postal 2 and America's Army: Special Forces. Fan programmers are motivated by Counter Strikes' popularity and aim for that in their own modifications. Desert Combat is an extremely popular modification for Battlefield which was created by using their free engine but are the developers commercially based or are they just fans of the game? The modification was developed by Trauma Studios who originated in 2003 and gained popularity because of Desert Combat. The gaming community have access to engines and development tools that game developers have. The author concludes by asking the question "Does this make Counter-Strike a game or will it ever stay a mod?".

## "Extensive modding for experimental game research."

Mohseni, M.R., Liebold, B. and Pietschmann, D. (2015) 'Extensive Modding for Experimental Game Research' In *Game Research Methods,* Anonymous , 323-340.

This article talks about extensive modifications in which fan programmers make significant changes to the environment, mechanics, and the storyline within the game. This can be done through tools and engines which the gaming industry provides. To make this happen, the modding community needs to understand the foundational components of the game as well as programming skills. To interpret the term modding the author mentions user interface customisations and game conversion mods.

User interface customisations change the players' experience by restricting and manipulating certain aspects within the game. An example of this might be when the player gets presented with a difficult task and the solution gets adjusted to something different. User interface customisations might also include things like removing the health bar so the gaming experience gets more difficult for the player.

Game conversion mods change the overall conditions of the game such as mapping, characters and game mechanics. An example of a popular game that has been converted is DOTA 2 which came from WarCraft 3: Reign of Chaos.

Fan programmers look for different things when they start modding a certain game. The game should be constantly updated but this may require an expensive set-up. If the computer can't handle certain games and engines then future complications may arise such as crashing and wiping important data. The modding community is an important part of any experience. If a fan programmer wants to modify a certain game then they tend to look for an active modding community so that they could use other mods provided for that game. It won't put pressure on the process and the game will be easier to maintain. The individual should also consider what type of game genre they would want to modify. The author states that there are various choices that the modding community think about before choosing a

game to modify. Changing code within an already existing game, modding a game using the provided engines or creating a game from scratch.